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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,152	12/29/2000	Stephen S. Jackson	2204/A84US	8441

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EXAMINER	
PHUNKULH, BOB A	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/752,152	JACKSON, STEPHEN S.	
	Examiner	Art Unit	
	Bob A. Phunkulh	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 September 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12,14-28,30-42 and 44-47* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12, 14-28, 30-42, 44-47* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

equest for Continued Examination

The request filed on 9/11/2006 for a Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application No. 09/752,152 is acceptable and a RCE has been established. An action on the RCE follows.

This communication is in response to applicant's 09/11/2006 amendment(s)/response(s) in the application of **JACKSON** for "**LOCAL AREA NETWORK WITH ELECTROCHEMICAL POWER SOURCE**" filed 12/29/2000. The amendments/response to the claims have been entered. No claims have been canceled. No claims have been added. Claims 1-12, 14-28, 30-42, 44-47 are now pending.

Claim Objections

Claim 24 is objected to because of the following informalities: please correct the dependency of the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4, 6-20, 22-35, 37-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lehr et al. (US 6,643,566), hereinafter Lehr, in view of *Kamioka* et al. (US 5,990,577), hereinafter *Kamioka*.

Regarding claims 1, 10-12, *Lehr* discloses a central network device (the combination of integrated power/data combiner unit 168 and lan hub/switch 128 and UPS and power 170, see figure 2B) for use in a power integrated local area network, the central network device comprising:

an electric power source (power source 171 and 170, see figure 2B); and

a network interface configured to communicate with a plurality of member network devices via a combined power/data link (*the integrated power/data combiner unit 168 having a plurality of ports connected to a plurality of devices i.e. 136, 142, 150, 158, via combined power/data links i.e. 138, 148, 154, see figure 2B*), the combined power/data link including at least one wire configured to deliver both power from power source (*combined power/data links 138, 348, 154, see figure 2B and col. 11 lines 48-54*) and data from the central network device to at least selected member network device being capable of accepting power over the power integrated local area network;

wherein the power source is configured to provide back up power to the at least one selected member network device in the event of an interruption of delivery of primary power to the central network device (in the event of power failure, UPS supply to critical network elements, see col. 9 lines 9-23).

Lehr fails to explicitly discloses the power source is electrochemical source i.e. battery power source.

Kamioka, on the other hand, discloses a hub for a local area network includes a plurality of communication ports connected to each of nodes in the network, through which a signal is transmitted among the nodes, and a power supply circuit for supplying a dc current for driving the signal processing circuit. The power supply circuit further comprises *a backup secondary battery, a charging circuit for trickle charging the dc current output from the ac/dc converter into the backup secondary battery, and a control circuit for opening and closing a current path for supplying an output current of the backup secondary battery to the load circuit* (see abstract).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made replace the UPS of Lehr with backup battery power supply of *Kamioka* in the system taught Lehr for providing a hub equipped with a backup power supply function without using an expensive uninterruptible power supply facility and where battery power is widely available and rechargeable.

Regarding claim 2, *Lehr* discloses a central network device according to claim 1, wherein the power integrated local area network is configured to execute the Ethernet protocol (IEEE 802.3, see col. 3 lines 60-62).

Regarding claim 3, *Lehr* discloses a central network device according to claim 1, further comprising networking logic chosen from the group consisting of a switch, a hub, a router, and a multiplexer (see col. 7 lines 45-54).

Regarding claim 4, *Lehr* discloses the power integrated local area network is configured to operate according to a Power Ethernet Standard (see col. 4 lines 6-20).

Regarding claim 5, *Lehr* inherently discloses the central network device being configured to deliver power and data through an MDI-X compliant port (it should be noted that media dependent interface (MDI-X) is widely used in Ethernet or 10Base-T network, see figure 2B).

Regarding claim 6, *Lehr* discloses a central network device according to claim 1, further comprising a housing shared by the electrochemical power source and the network interface (see figure 2B).

Regarding claim 7, *Lehr* discloses a central network device comprising power rectification circuitry (filtering and protection circuitry 182, see figure 3).

Regarding claim 8-9, *Lehr* discloses the central network device further comprising an AC to DC converter or DC to AC converter (see col. 9 lines 33-40).

Regarding claim 14, *Lehr* discloses the plurality of member network devices comprises a network appliance (see figure 2B).

Regarding claim 15, *Lehr* discloses the network appliance comprises:

a peripheral device configured to transmit data to the power integrated local area network (phone 142, 158, camera 136, see figure 2B);

a communication engine operably coupled with the peripheral device, the communication engine configured to control data transmission via the power integrated local area network (power/data splitter 140, see figure 2B); and

an appliance network interface operably coupled with the communication engine, the appliance network interface being configured to transmit data to and to receive data from the power integrated local area network, data transfer between the peripheral device and the power integrated local area network being forwarded via the appliance network interface, via combined power/data links, each of the combined power/data links includes at least one wire for simultaneously delivering both power and data to the plurality of number network devices (see figure 2B; and col. 11 lines 48-55).

Regarding claim 16, *Lehr* discloses a power integrated local area network, the network comprising:

a plurality of member network devices (devices 136, 142, 158, see figure 2B); and

a central network device (integrated power/data combiner unit 168, see figure 2B) configured to communicate with the plurality of member network devices via a plurality of combined power/data links (links 138, 148, 152, see figure 2B), and to deliver both power, from energy stored in an power source in the central network device and data from the central network device, to at least one selected member network

device that is capable of accepting data and power from the central network device via combined power/data link coupled to the at least one selected member network device (136, 142, 158, capable of accepting data and power from the integrated power/data combiner unit 168, see figure 2B);

wherein the power source is configured to provide back up power to the at least one selected member network device in the event of an interruption of delivery of primary power to the central network device (in the event of power failure, UPS supply to critical network elements, see col. 9 lines 9-23).

Lehr fails to explicitly discloses the power source is electrochemical source i.e. battery power source.

Kamioka, on the other hand, discloses a hub for a local area network includes a plurality of communication ports connected to each of nodes in the network, through which a signal is transmitted among the nodes, and a power supply circuit for supplying a dc current for driving the signal processing circuit. The power supply circuit further comprises *a backup secondary battery, a charging circuit for trickle charging the dc current output from the ac/dc converter into the backup secondary battery, and a control circuit for opening and closing a current path for supplying an output current of the backup secondary battery to the load circuit* (see abstract).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made replace the UPS of Lehr with backup battery power supply of *Kamioka* in the system taught Lehr for providing a hub equipped with a

backup power supply function without using an expensive uninterruptible power supply facility and where battery power is widely available and rechargeable.

Regarding claims 17, 22, 26-28, *Lehr* discloses a central network device for use in a power integrated local area network, the central network device comprising:

networking logic, configured to communicate with a plurality of member network devices via a corresponding plurality of combined power/data links, the combined power/data links comprise at least one wire for simultaneously providing both power and data to the plurality of member network devices (the integrated power/data combiner unit 168 supply both power and data simultaneously over links 138 148, 154 to devices 136, 142, 158 20, see figures 2B; and col. 11 lines 50-54); and

a power source means for providing power to at least one selected member network device via a combined power/data link associated with the at least one selected member, the selected member network device being capable of accepting power over the power integrated local area network (power supply 171 and 170, see figure 2B).

Lehr fails to explicitly discloses the power source is electrochemical source i.e. battery power source.

Kamioka, on the other hand, discloses a hub for a local area network includes a plurality of communication ports connected to each of nodes in the network, through which a signal is transmitted among the nodes, and a power supply circuit for supplying a dc current for driving the signal processing circuit. The power supply circuit further comprises *a backup secondary battery, a charging circuit for trickle charging the dc*

current output from the ac/dc converter into the backup secondary battery, and a control circuit for opening and closing a current path for supplying an output current of the backup secondary battery to the load circuit (see abstract).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made replace the UPS of Lehr with backup battery power supply of *Kamioka* in the system taught Lehr for providing a hub equipped with a backup power supply function without using an expensive uninterruptible power supply facility and where battery power is widely available and rechargeable.

Regarding claim 18, *Lehr* discloses a central network device according to claim 1, wherein the power integrated local area network is configured to execute the Ethernet protocol (IEEE 802.3, see col. 3 lines 60-62).

Regarding claim 19, *Lehr* discloses a central network device according to claim 1, further comprising networking logic chosen from the group consisting of a switch, a hub, a router, and a multiplexer (see col. 7 lines 45-54).

Regarding claim 20, *Lehr* discloses a central network device according to claim 1, wherein the power integrated local area network is configured to operate according to a Power Ethernet Standard (see col. 4 lines 6-20).

Regarding claim 21, *Lehr* inherently discloses the central network device being configured to deliver power and data through an MDI-X compliant port (it should be noted that media dependent interface (MDI-X) is widely used in Ethernet or 10Base-T network, see figure 2B).

Regarding claim 23, *Lehr* discloses a central network device comprising power rectification circuitry (filtering and protection circuitry 182, see figure 3).

Regarding claim 24-25, *Lehr* discloses the central network device further comprising an AC to DC converter or DC to AC converter (see col. 9 lines 33-40).

Regarding claim 30, *Lehr* discloses a central network device according to claim 17, wherein the plurality of member network devices comprises a network appliance (see col. 3 lines 5-11).

Regarding claim 31, *Lehr* discloses the network appliance comprises:

a peripheral device configured to transmit data to the power integrated local area network (phone 142, 158, camera 136, see figure 2B);

a communication engine operably coupled with the peripheral device, the communication engine configured to control data transmission via the power integrated local area network (power/data splitter 140, see figure 2B); and

an appliance network interface operably coupled with the communication engine, the appliance network interface being configured to transmit data to and to receive data from the power integrated local area network, data transfer between the peripheral device and the power integrated local area network being forwarded via the appliance network interface, via combined power/data links, each of the combined power/data links includes at least one wire for simultaneously delivering both power and data to the plurality of number network devices (see figure 2B; and col. 11 lines 48-55).

ng forwarded via the appliance network interface (see col. 3 lines 5-11).

Regarding claims 32, 37, 40-42, *Lehr* discloses a method for powering a local area network using power from a central network device, the method comprising:

selecting at least one member network device capable of accepting power over the local area network on a combined power/data link in the local are network, the combined power/data link including at least one wire for simultaneously providing both power and data to the at least one member network device (integrated power/data combiner unit 168 supply both power and data over the data/power link 138, 148, 154 to the selected devices i.e. 136, 142, 150, 158, see figure 2B); and

providing power, from energy stored by an power source,

to the at least one selected member network device via the combined power/data link in the event of an interruption of delivery of primary power to the central network device (the integrated power/data combiner unit 168 includes an UPS 171 to provides power in the ever of an interruption, see col. 9 lines 9-23).

Lehr fails to explicitly discloses the power source is electrochemical source i.e. battery power source.

Kamioka, on the other hand, discloses a hub for a local area network includes a plurality of communication ports connected to each of nodes in the network, through which a signal is transmitted among the nodes, and a power supply circuit for supplying a dc current for driving the signal processing circuit. The power supply circuit further comprises *a backup secondary battery, a charging circuit for trickle charging the dc current output from the ac/dc converter into the backup secondary battery, and a control circuit for opening and closing a current path for supplying an output current of the backup secondary battery to the load circuit* (see abstract).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made replace the UPS of Lehr with backup battery power supply of *Kamioka* in the system taught Lehr for providing a hub equipped with a backup power supply function without using an expensive uninterruptible power supply facility and where battery power is widely available and rechargeable.

Regarding claim 33, *Lehr* discloses a central network device according to claim 1, wherein the power integrated local area network is configured to execute the Ethernet protocol (IEEE 802.3, see col. 3 lines 60-62).

Regarding claim 34, *Lehr* discloses a central network device according to claim 1, further comprising networking logic chosen from the group consisting of a switch, a hub, a router, and a multiplexer (see col. 7 lines 45-54).

Regarding claim 35, *Lehr* discloses a central network device according to claim 1, wherein the power integrated local area network is configured to operate according to a Power Ethernet Standard (see col. 4 lines 6-20).

Regarding claim 36, *Lehr* inherently discloses the central network device being configured to deliver power and data through an MDI-X compliant port (it should be noted that media dependent interface (MDI-X) is widely used in Ethernet or 10Base-T network, see figure 2B).

Regarding claim 38-39, *Lehr* discloses the central network device further comprising an AC to DC converter or DC to AC converter (see col. 9 lines 33-40).

Regarding claim 44, *Lehr* discloses a central network device according to claim 17, wherein the plurality of member network devices comprises a network appliance (see col. 3 lines 5-11).

Regarding claim 45, *Lehr* discloses the network appliance comprises:

a peripheral device configured to transmit data to the power integrated

local area network (phone 142, 158, camera 136, see figure 2B);

a communication engine operably coupled with the peripheral device, the communication engine configured to control data transmission via the power integrated local area network (power/data splitter 140, see figure 2B); and

an appliance network interface operably coupled with the communication engine, the appliance network interface being configured to transmit data to and to receive data from the power integrated local area network, data transfer between the peripheral device and the power integrated local area network being forwarded via the appliance network interface, via combined power/data links, each of the combined power/data links includes at least one wire for simultaneously delivering both power and data to the plurality of number network devices (see figure 2B; and col. 11 lines 48-55).

Regarding claim 46, *Lehr* discloses a central network device for use in a power integrated local area network, the central network device comprising:

a housing;

networking logic, enclosed by the housing, configured to communicate with a plurality of member network devices via a plurality of combined power/data links, each of the combined power/data links including at least one wire for simultaneously delivering both power and data to the plurality of member network devices (line interface circuitry in power/data combiner unit communicate with the plurality of member network devices 136, 142, 158 via power/data links 138, 148, 154, see figures 2B and 3);

an power source, sharing the housing with the networking logic, for storing energy to provide power for the member network devices, via the power/data links (see power supply 171, figure 2B); and

wherein the power integrated local area network is configured to execute the Ethernet protocol(see col. 4 lines 6-20).

Lehr fails to explicitly discloses the power source is electrochemical source i.e. battery power source.

Kamioka, on the other hand, discloses a hub for a local area network includes a plurality of communication ports connected to each of nodes in the network, through which a signal is transmitted among the nodes, and a power supply circuit for supplying a dc current for driving the signal processing circuit. The power supply circuit further comprises *a backup secondary battery, a charging circuit for trickle charging the dc current output from the ac/dc converter into the backup secondary battery, and a control circuit for opening and closing a current path for supplying an output current of the backup secondary battery to the load circuit* (see abstract).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made replace the UPS of Lehr with backup battery power supply of *Kamioka* in the system taught Lehr for providing a hub equipped with a backup power supply function without using an expensive uninterruptible power supply facility and where battery power is widely available and rechargeable.

Regarding claim 47, *Lehr* discloses a method for powering a local area network using power from a central network device, the method comprising:

housing an power source in a common enclosure with networking logic configured to communicate with a plurality of member network devices a plurality of combined power/data links, each of the combined power/data links including at least one wire for simultaneously delivering both power and data to the plurality of member network devices (line interface circuitry in power/data combiner unit communicate with the plurality of member network devices 136, 142, 158 via power/data links 138, 148, 154, see figures 2B and 3);

rectifying primary power that is delivered to the central network device, to charge the power source (power 170 is connected to UPS 171, figure 2B);

delivering power stored by the electrochemical power source to at least one of the plurality of member network devices (see figure 2B); and

executing the Ethernet protocol on the local area network (see col. 4 lines 6-20).

Lehr fails to explicitly discloses the power source is electrochemical source i.e. battery power source.

Kamioka, on the other hand, discloses a hub for a local area network includes a plurality of communication ports connected to each of nodes in the network, through which a signal is transmitted among the nodes, and a power supply circuit for supplying a dc current for driving the signal processing circuit. The power supply circuit further comprises *a backup secondary battery, a charging circuit for trickle charging the dc current output from the ac/dc converter into the backup secondary battery, and a control*

circuit for opening and closing a current path for supplying an output current of the backup secondary battery to the load circuit (see abstract).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made replace the UPS of Lehr with backup battery power supply of *Kamioka* in the system taught Lehr for providing a hub equipped with a backup power supply function without using an expensive uninterruptible power supply facility and where battery power is widely available and rechargeable.

Response to Arguments

Applicant's arguments with respect to claims 1-12, 14-28, 30-42, 44-47 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any response to this action should be mailed to:

The following address mail to be delivered by the United States Postal Service (USPS) only:

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Bob A. Phunkulh** whose telephone number is **(571) 272-3083.** The examiner can normally be reached on Monday-Tursday from 8:00 A.M. to 5:00 P.M. (first week of the bi-week) and Monday-Friday (for second week of the bi-week).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor **Wellington Chin**, can be reach on **(571) 272-3134.** The fax phone number for this group is **(571) 273-8300.**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bob A. Phunkulh
Primary Examiner
TC 2600
Technology Division 2616
September 18, 2006

BOB PHUNKULH
PRIMARY EXAMINER